ABSTRACT

Purpose: To assess the ocular hypotensive effect and tolerability of fixed combination of brinzolamide 1% and brimonidine 0.2% in Indian patients with Open angle glaucoma

Materials and methods: Newly diagnosed patients with ocular hypertension, primary open-angle, pseudoexfoliation glaucoma were enrolled. Following baseline measurements (office hours phasing) , fixed combination of brinzolamide 1% and brimonidine 0.2% was applied topically twice daily for 4 weeks. Patients were examined at 4 weeks for IOP recordings and evaluation of side effects.s. The diurnal variation of IOP post- treatment at 4 weeks was also seen.

Results: Twenty five enrolled patients completed the study. At 4 weeks, the mean IOP reduction was 4.43± 3.13 mmHg. with fixed combination of brinzolamide 1% and brimonidine 0.2% . There was 17.69% (range 4.76 – 36.58 %) reduction in IOP which was statistically significant at all time points. Four patients showed ≤ 2 mmHg reduction post-treatment which is most likely due to non- compliance rather thn non-response to the fixed combination.

During 24- hour IOP recording showed low nocturnal pressures with minimal fluctuations at night but an early morning peak (8am)Most patients had IOP fluctuation between 1-4mmHg.indicating good overall control of IOP through the day and night. IOP variation of >4mmHg was seen in only 5 patients .

The most common side effect were ocular surface symptoms- 4 patients with burning sensation (16%), 8 patients with foreign body sensation (32 %), 5 patients with watering (20%), 2 patients with hyperaemia (8%) . None of them require discontinuation of treatment due to side effects. The symptoms also tended to be better at 4 weeks compared to 2 weeks indicating a trend to better tolerability long term. There were no systemic adverse effects observed or reported by any patients .

Conclusion: In this short-term study, the fixed combination of brinzolamide 1% and brimonidine 0.2% achieved mean reduction of 4.43± 3.13 mm Hg ; 17.69% (range 4.76 – 36.58 %) at 1 month in our patients with primary open angle glaucoma and ocular hypertension .

The amount of IOP reduction was statistically significant but lower compared to that reported in other studies reported in Caucasian eyes.

The 24 hour IOP recordings in patients on treatment of this drug showed low nocturnal IOPs with minimal nocturnal fluctuation but an early morning peak (8am).

Mild ocular surface symptoms were the most common side effects which did not interfere with activities of daily life. No systemic adverse effects were seen in any of the patients. None needed discontinuation of the drug.